

Fig. 1. Comparison of 4 DPD primer/probe sets for their ability to amplify DPD mRNA.

**DPD Gene expression detection using various primer/probe sets in
Formalin Fixed paraffin embedded tissue**

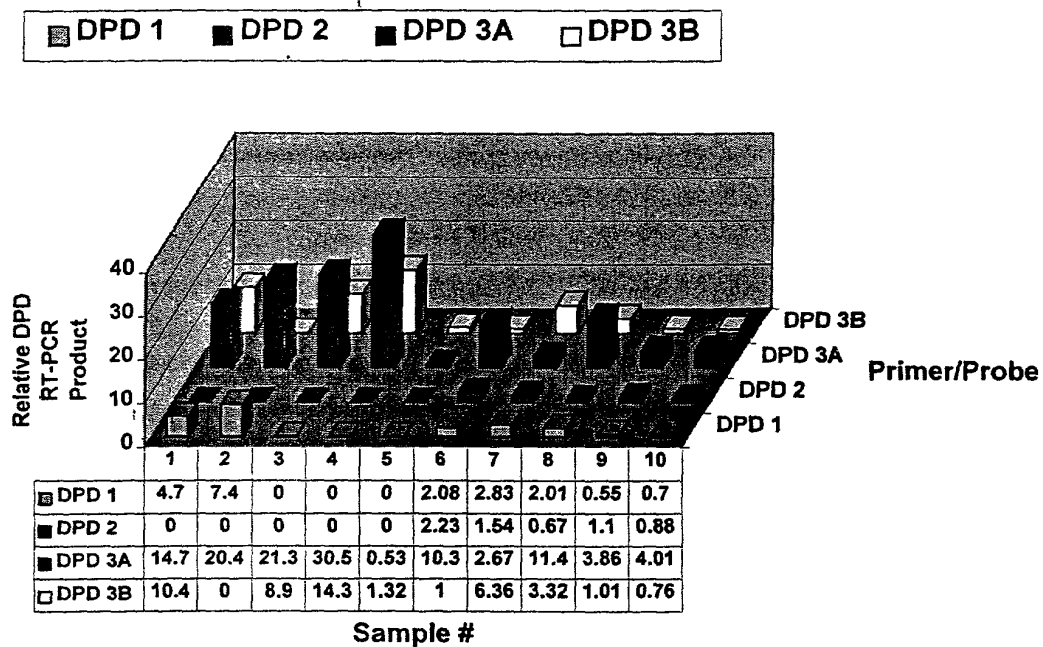


Fig. 2. Comparison of amplification efficiency of primer/probe DPD 3A and DPD 1 to amplify DPD mRNA from frozen tissue.

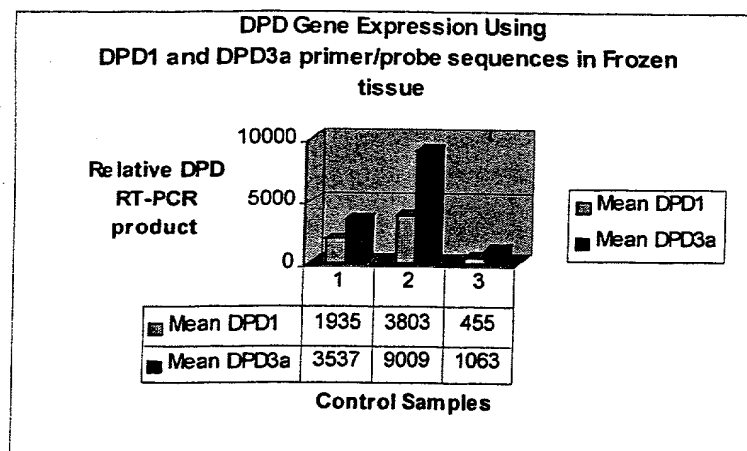


Fig. 3. Chart illustrating how to calculate *DPD* expression relative to an internal control gene.

| | from "test" reaction | | | | from "calibration" reaction | | | | Uncorrected Gene Expression (UGE) | Published <i>DPD</i> values | Derivation of K_{DPD} (average K) | Corrected Relative <i>DPD</i> exp. |
|---------------------|----------------------|------------------|----------------------|--------------|-----------------------------|------------------|----------------------|--------------|-----------------------------------|-----------------------------|--|------------------------------------|
| | Sample | C_T <i>DPD</i> | C_T β -actin | ΔC_T | $2^{-\Delta C_T}$ | C_T <i>DPD</i> | C_T β -actin | ΔC_T | | | | |
| Experimental | unknown 1 | 25.05 | 19.84 | 5.21 | 0.027 | - | - | - | 4.47 | - | 1.08×10^3 | 4.83×10^3 |
| | unknown 2 | 28.18 | 18.76 | 9.42 | 0.0015 | - | - | - | 0.241 | - | 1.08×10^3 | 0.2608×10^3 |
| | Calib RNA | - | - | - | - | 26.92 | 19.55 | 7.37 | 0.006 | 0.006/0.006=1 | - | 1.08×10^3 |
| From Published Data | L7 | 31.04 | 24.56 | 6.49 | 0.011 | - | - | - | 2.45 | 2.7×10^3 | 1.10×10^3 | - |
| | L91 | 27.95 | 20.5 | 7.45 | 0.0057 | - | - | - | 1.26 | 1.2×10^3 | 1.08×10^3 | - |
| | L121 | 26.88 | 19.2 | 7.68 | 0.00488 | - | - | - | 1.07 | 1.1×10^3 | 1.02×10^3 | - |
| | L150 | 33.32 | 22.88 | 10.44 | 0.00072 | - | - | - | 0.158 | 0.17×10^3 | 1.08×10^3 | - |
| | L220 | 26.96 | 22.01 | 4.95 | 0.03235 | - | - | - | 7.12 | 7.3×10^3 | 1.03×10^3 | - |
| | L164 | 25.44 | 21.4 | 4.04 | 0.0607 | - | - | - | 13.38 | 16×10^3 | 1.2×10^3 | - |
| | Calib RNA | - | - | - | - | 27.88 | 20.098 | 7.782 | 0.005 | 0.005/0.005 = 1 | - | - |

Figure 4: Boxplots of relative DPD ($\times 10^{-3}$) expression levels for specimens of each histologic type

